

Application Serial No. 10/662,485
Response to Office Action of 15 June 2005

REMARKS

Claim status

Claims 1-40 were pending in the case at the time of the Office Action. Of these, all claims are under non-final rejection as indicated below. The Independent claims are 1, 15, 27 and 36.

Claim amendments

Each of the independent claims has been amended in a non-narrowing manner to emphasize what the applicant considers to be the inventive aspect of the disclosure, that is, an electronic display of an aircraft flight parameter in a non-linear tape that emulates the view that would be obtained on a mechanical drum gauge display of that parameter. As the tape scrolls to display a current value of the parameter, the mechanical drum gauge emulation is maintained.

This amendment is non-narrowing because the amendment merely changes the emphasis of that which is already present in each claim.

Information Disclosure Statement

The applicant thanks the Examiner for acknowledging review of the IDS filed electronically on 11 February 2005.

Claim rejections under 35 U.S.C. §102(b)

The Examiner's prior rejection of certain claims as anticipated by US Pat. 6,686,851 to Gordon ("Gordon '851") has not been repeated, so it is deemed to have been overcome.

Claim rejections under 35 U.S.C. §103

The Examiner has rejected claims 1-5, 7-18, 22-29, 33-37, 39 and 40 as obvious over Gordon '851 and US Pat. 6,683,541 to Staggs ("Staggs '541").

The Examiner has rejected claims 6, 32 and 38 as obvious over the combination of Gordon '851 and Staggs '541 with US Pat. 4,860,007 to Konicke ("Konicke '007").

The Examiner has rejected claims 19-21, 30 and 31 as obvious over the combination of Gordon '851 and Staggs '541 with US Pat. 6,112,141 to Briffe ("Briffe '141").

Application Serial No. 10/662,485
Response to Office Action of 15 June 2005

It is clear from the foregoing that it is the combination of Gordon '851 with Staggs '541 that will determine the issue of patentability.

There are four independent claims in the case. As amended above, they can really be boiled down to the following generic form:

"An electronic display for presenting data of an aircraft flight parameter, comprising:

an electronic tape having a nonlinear scale emulating the view of a mechanical drum gauge;

wherein the mechanical drum gauge view is maintained upon scrolling of the tape to display the current value of the flight parameter."

In claim 1, the parameter is airspeed; in claim 15, the parameter is altitude; in claim 27, the parameter is heading; and in claim 36, the parameter is unspecified.

Specifically addressing the rejection of the claim 1, the applicant notes that the Examiner says that the "claimed electronic airspeed tape is met by the airspeed indicator (No. 28) having a nonlinear scale seen in Figures 2 and 11, wherein the hidden numbers 1 and 9 help to emulate the view of a mechanical drum gauge, and scrolling of the airspeed tape maintains the scale of the display." But the Examiner goes further to state that "however, the scale in the airspeed tape is linear as opposed to nonlinear."

The Examiner's reference to "hidden numbers 1 and 9" is not understood. The Examiner made the same comment in the prior Office Action in making a novelty rejection based on Gordon '851. Accordingly, the applicant directs the Examiner to the response made to that point, particularly as to how the "hidden numbers help to emulate the view of a mechanical drum gauge."

Further, it is not understood how the nonlinear nature of the electronic tape can emulate a mechanical drum gauge if the scale shown in Gordon '851 is "linear as opposed to nonlinear," which the Examiner admits.

Application Serial No. 10/662,485
Response to Office Action of 15 June 2005

Paragraph [0012] of the specification as filed makes it clear that it is precisely the nonlinear nature of the tape scale that causes the emulation:

As can be noted in Figures 1 – 3 of the example embodiments of the present invention, the object of the present invention is to provide a nonlinear scale that emulates the view of a mechanical drum gauge. More specifically, the nonlinear tape display of the present invention provides for a narrowing in the respective distance between the tick marks denoting an equivalent measured amount of a given parameter along the scale as one proceeds from the center of the nonlinear tape emulation to the outside range of values at either end of the scale.

It is clear to the applicant that Gordon '851 shows a linear tape display, as explicitly taught in the paragraph starting at Col. 3, line 42, and there is no apparent teaching that the display would do anything of a nonlinear nature when scrolling to display the current value of the displayed parameter.

It is also clear that Staggs '541 does not contribute anything meaningful to the Examiner's argument. The Examiner cites Figures 4-6c as showing a vertical speed indicator 108 with a nonlinear scale, and cites this as evidence of the prior use of nonlinear scales to display advanced navigation information. The problem with this analysis is that the scale is not nonlinear. The accompanying text says "Tape vertical indicator 108 includes linear indicia 110 indicating vertical speed in hundreds of feet per minute." Col. 13, lines 27-29. Staggs '541 does not show or teach anything which would emulate a mechanical drum gauge.

The same arguments apply to claims 15, 27 and 36. For these reasons, the applicant respectfully asserts that the independent claims, as amended, are allowable over the combination of Gordon '851 and Staggs '541, because neither reference teaches the use of an electronic display tape to emulate a mechanical drum gauge, nor fairly suggests it.

Application Serial No. 10/662,485
Response to Office Action of 15 June 2005

If the Independent claims are allowable, then the remaining dependent claims are also allowable as proper dependent claims.

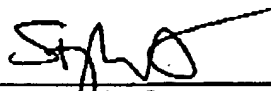
Conclusion

Claims 1-40 are pending in the present application. All are believed to be allowable and prompt reconsideration of the Examiner's rejection is earnestly requested.

Respectfully submitted,

Dated: 14 Sept. 2005

By: _____


Stephen L. Grant
Registration No. 33,390
Standley Law Group LLP
495 Metro Place South, Suite 210
Dublin, Ohio 43017-5315
Telephone: (614) 792-5555
Facsimile: (614) 792-5536